2.5.1 Tri-Service Objectives, Assumptions and Constraints

2.5.1.1 Tri-Service Objectives

The overall objective of the system is to support modernization and automation of the Department of Defense (DoD) components' technical, training and equipment publications processes. These processes include manage, acquire, publish, maintain/improve, stock and distribute in paper or digital media, world-wide. Additionally, the automated activities for the functional areas of manage, stock, and distribute apply to administrative, training, and doctrinal publications for the Army and the Navy.

The joint TM system must provide a cost effective capability for TM acquisition, distribution and maintenance in either hard-copy or digital format, and the use of adequate, current and clearly displayed digital TM data in accordance with the DoD Computer-aided Acquisition and Logistic Support (CALS) initiatives.

The system will be incorporated into the Army, Navy and Air Force CALS architectures. The architecture must provide a flexible, modular system concept to provide a strong foundation for long-term growth and change. The system will acquire and employ DoD standard systems hardware and software via requirements contracts to the maximum extent possible. The system will maximize effective and economical use of existing assets (personnel, organizational structures, automated data systems, facilities, etc.) whenever possible.

The joint TM system will incorporate the functionality of the following Army systems:

- Equipment Publications Management System (EPMS)
- Equipment Oriented Publications Data Base (EOPDB)
  - Army Publications Logistics System (APLOGS)
  - Publications Automated Information Locator System (PAILS)
  - Case Management System
  - Computerized Inventory Management System (CIMS)
  - Warehouse System (Bin/Rack and Bulk)
  - Standard Single Account File (SSAF)
  - Initial Distribution (ID) Requirements File
  - Customer Requisitioning Account Module (CRAM)
  - Foreign Military Sales (FMS) Backorder System
  - Order Entry and File Maintenance System
  - Automated Publications Production System (APPS)
  - Two Resource Management Data Bases for Budget

Variables

The Department of the Navy intends that systems and components acquired to satisfy joint TM system requirements Will be used to support and augment current/planned Navy systems.

- Naval Publications and Forms Center (NPFC) system
- Naval Sea Systems Command (NAVSEA) Enhanced Ships Technical Publication System (E-STEPS)
- NAVSEA Modular Specification (M-SPEC) system
- U.S. Marine Corps (USMC) Electronic Technical Publications System (ETPS)
- Navy Publishing and Printing Service (NPPS) Automated Logistics Publishing System (ALPS)
- Navy Technical Manual Publish On Demand System (TMPODS)

The joint TM system will incorporate the functionality of the following Air Force systems:

- Logistics Management of Technical Order System (LMTOS) (GO22)
- Automated Technical Order Management System (ATOMS)
- World-wide Keypunch Replacement Program (WKRP)
- Automated Technical Order System (ATOS)

The system will:

a. Ensure that digital TMs are acceptable for DoD use.

b. Provide capabilities to support data base, TM activities, transactions back-up and alternate site processing in the event of catastrophic failures.

c. Provide for developing and submitting TM budgets.

d. Provide communications capabilities among users throughout the system network.

e. Employ the evolving CALS specifications and standards.

f. Provide configuration management and version control of TMs to include those manuals stored as paper, digital page oriented Tms, and interactive electronic TMs.

g. Provide changes to applicable computer-based training modules and affected help screens concurrently with the system software update releases.

h. Provide the capability to convert existing management data, both paper and digital, as required to meet processing.

i. Provide the following TM media and format conversion capabilities as a minimum:

1. Paper-to-Raster
2. Paper-to-ASCII with Standard Generalized Markup Language (SGML)
3. Raster-to-ASCII with SGML
4. Raster-to-Vector
5. ASCII with SGML-to-Page Description Language (PDL)
6. Vector-to-Raster

j. Comply with the intent of Corporate Information Management (CIM) objectives.

k. Provide the capabilities to accept, store, and maintain TMs delivered from weapon system contractors.

l. Provide for the integration of Logistic Support Analysis Record data, engineering information, and/or data from maintenance systems.

m. Provide the capability to retrieve and print selected data on demand, such as information on TM requirements, quantities, schedules, configuration management, user profiles and recommended changes.

n. Provide the capability to acknowledge, review, coordinate, comment and approve recommended changes to TMs.

o. Automate the transmittal and routing of the automated data to the appropriate reviewing and approving agency.

p. Provide an automated capability to support the designated system func;ions which include manage, acquire, create, improve, publish, stock, maintain, and distribution TMs. The capability must support both paper and digital TMs distributed to users world-wide and track TM acquisition related documentation and cost accounting for TM services (e.g., printing, communications, and acquisition).

q. Provide the capability to properly identify tagged data for hazardous material.

r. Provide interactive, on-line, context-sensitive help screens as an integral function. The help function will refer the user to the appropriate area of the computer-based training where more information may be found.

s. Provide capabilities to assign and track TMs by the cur-rent TM numbering system and/or stock number.

t. Provide the capability to access and update TM indexes, cross reference indexes and Service-unique indexes for published TMs (commercial and organic).

u. Support the management, acquisition, access, improvement, publishing, storage, and distribution of IETMs DBs. It will support non-redundant procurement of high-quality IETMs and IETM DBs by supporting indexing of TM information and data at the level of lowest reusable segment (process, step, procedure, etc.). The system will support IETM open architecture. It will support standard distributable (publishable) media and information packaging (view package decision logic) to efficiently distribute IETMs to end users. The system will support measurement and storage of data on IETM quality factors (e.g., verification status, frame information density, reading grade level, etc.).

v. Provide the capability to maintain information on receipt, storage, issuance, stock quantities and disposal of TMs. The system must also support these functions which are currently provided by Naval Publications and Forms Center in support of directives and stock funded forms. It must also support these functions which are currently provided by the U.S. Army Publications and Printing Command in support of training, doctrinal, and administrative publications and departmental blank forms.

w. Provide the capability to print on demand at the base/post level library for all printing tasks (e.g., printing and collating of entire changes provided digitally, page replacement, local checklists, minor changes and reports).

x. Provide support from the base level distribution system to the Major Command (MAJCOM) to author, store and distribute locally generated Class I and II modifications, one-time inspection checklists, maintenance checklists, job aides, and workcards for review, management, and use at the work site.

y. Provide the capability to validate, coordinate and control assignment, cancellation and renumbering of TMs and changes thereto.

z. Provide the capability to author TM policy and guidance documentation, coordinate the resulting documents through their approval cycle, and send the documents to publishing.

aa. Reduce the quantities of paper TMs and the need for large storage facilities.

ab. Provide the capability for automated TM requisition processing and distribution. For the Navy, this will be centralized.

ac. Provide the capability to manage classified material, and ensure adherence to classified data handling restrictions. The goal is to control both digital and paper TMs and TM management data, up to and including the classification of secret. The system must adhere to DoD, National Security Administration (NSA), Communications Security (COMSEC), TEMPEST, Computer Security (COMPUSEC), Trusted Computer Base (TCB) requirements for hardware, software, communications and physical access.

ad. Support management of selected TMs for the Security Assistance Program (SAP).

ae. Provide the capability to maintain TM source data packages.

af. Provide a standardized capability to track the life cycle of a TM along with other TM support information (e.g., reports, audits, indexes, management information).

ag. Provide the capability to support computer-based training (CBT) for end users.

ah. Allow user profiles to be updated by the TM managers.

ai. Support processes and procedures for initiating and coordinating waivers to procedures for TMs and directives.

aj. Provide the capability to support deployed units.

ak. Provide "should cost" information for TM efforts.

al. Provide indexing capabilities at all levels to include commercial documents, command and installation publications.

am. Automate the information processes currently accomplished with the following forms and reports.

1. DD Forms:

250 Material Inspection and Receiving Report
254 DoD contract Classification Specification
282 Printing Requisition

843 Requisition for Printing and Binding Services
844 Requisition for a Local Duplication Service
1155 Service Order
1348 Milstrip Requisition Form
1348-1 DoD Single Line Item Release/Receipt Document
1423 Contract Data Requirements List
1664 Data Item Description
1692 Engineering Change Proposal

2. Data Item Description:

DI-F-6126 Report of Technical Manual Costs
DI-FNCL-80729 Publication Cost Report (PCR)
DI-M-2194 Technical Manual, Quality Assurance Program Plan
DI-M-2195 Technical Manual, Validation Plan
DI-M-2196 Technical Manual, Validation Certificate
DI-M-2197 Technical Manual, Evaluation Record
DI-M-2198 Technical Manual, Verification Plan
DI-M-2199 Technical Manual, Verification Planning Data Cards
DI-M-2200 Technical Manual, Verification Sequence Control Chart
DI-M-2201 Technical Manual, Verification Incorporation Certification
DI-M-6154 Technical Manual Plan (TMP)
DI-M-6155 Technical Manual Status and Schedules
DI-M-6159 Validation Record (Technical Manuals)
DI-M-30431 Depot Technical Data Control Manual Outlines
DI-SAFT-80931 Explosive Ordance Disposal Data
DI-TMSS-80063 Technical Manual Publication Plan
DI-TMSS-80064 Technical Manual Schedules and Status Report
DI-TMSS-80527 Commercial Off-the-Shelf (COTS) Manuals
DI-TMSS-80528 Supplemental Data for Commercial Off-the-Shelf (COTS)
DI-TMSS-80065 Procedural Support Data
DI-TMSS-80066 Development Program Manual
DI-TMSS-80067 Technical Manual CFAF,/CFE Notices
DI-TMSS-80068 Report of Technical Manual Costs
DI-TMSS-80069 Technical Manual Validation Plan
DI-TMSS-80070 Technical Manual Validation Completion Report

3. GPO Forms:

GPO 2511 Print Order
GPO 3868 Notification if Intent to Publish

4. Standard Forms (SF):

SF 1 Printing and Binding Requisition
SF 33 Solicitation, Offer and Award
SF 364 Report of Discrepancy

5. Army Forms:

(a) DA Forms:

DA Form 12-R	Request for Establishing a Publication Account
DA Form 12-4R	Subscription for Miscellaneous Administrative Publications and Posters
DA Form 12-5R	Subscription for Department of the Army Periodicals
DA Form 12-8R	Subscription for ACPs and JANAPs (part 1)
DA Form 12-8A-R	Subscription for ACPs and JANAPs (part 2)
DA Form 12-9A-R	Subscription for UNCLASSIFIED Administrative Publications
DA Form 12-9B-R	Subscription for CLASSIFIED Administrative Publications by Series
DA Forms 12-9C-R	Subscription for CLASSIFIED Administrative Publications
DA Forms 12-9U-R	Subscription for Army UPDATE Publications Requirements
DA Form 12-11A-R	Subscription for CLASSIFIED Army Doctrinal and Training Publications
DA Form 12-11C-R	Subscription for CLASSIFIED Army Doctrinal and Training Publications
DA Form 12-11D-R	Subscription for Soldier Training Publications (Enlisted)
DA Form 12-11G-R	Subscription for Military Qualifications Standards Manuals (Commissioned Officer)
DA Form 12-12R	Subscription for Tables of Organization and Equipment
DA Form 12-12A-R	Subscription for Army Training and Evaluation Program Publications

DA Form 12-21-R	Subscription for Federal and DA Supply Catalog Identification Lists
DA Form 12-25A-R	Subscription for Troop Support and Construction Equipment Publications
DA Form 12-25F-R	Subscription for Handling/Warehouse Equipment Publications
DA Form 12-28-R	Subscription for Army Chemical Equipment Publications
DA Form 12-29-R	Subscription for EOD technical Publications
DA Form 12-31-R	Subscription for Army Chemical Equipment
DA Form 12-31A-R	Subscription for Army Aircraft Component Publications
DA Form 13-32-R	Subscription for Army Missile, Rocket, and Air Defense Systems Publications
DA Form 12-34-R	Subscription for Department of the Army Supply Bulletins
DA Form 12-34B-R	Subscription for Department of the Army Non-Equipment Technical Publications
DA Form 12-34C-R	Subscription for UNCLASSIFIED Department of the Army Technical Publications
DA Form 12-34D-R	Subscription for CLASSIFIED Department of the Army Technical Publications
DA Form 12-34E-R	Subscription for CLASSIFIED Department of the Army Intelligence Technical Publications
DA Form 12-35-R	Subscription for Nuclear Weapons Publications
DA Form 12-36-R	Subscription for Electronic Equipment Publications (less Aviation and Missile) part I
DA Form 12-37-R	Subscription for DA Combat Tracked Vehicle Publications
DA Form 12-38-R	Subscription for Army Automotive Non-Tracked Vehicle Publications
DA Form 12-39-R	Subscription for Army Dolly, Semitrailer, and Trailer Publications
DA Form 12-40-R	Subscription

DA Form 12-40A-R	Subscription for Army Conventional Ammunition Publications
DA Form 12-41-R	Subscription for Sighting and Fire Control Equipment Publications
DA Form 12-43-R	Subscription for Army Communications Security (COMSEC) Equipment Publications
DA Form 12-51-R	Subscription for Electronic Equipment Publications (less Aviation and Missile) part II
DA Form 12-99-R	DA Form 12-Series Subscription Change Sheet
DA Form 209	Delay, Referral, or Follow-up Notice
DA Form 260	Request for Printing of Publication
DA Form 4569-1-R	Security Assistance DA Publications Requisition Code Sheet
DA Form 479	Publication and Blank Form Stock Record
DA Form 479-1	Publication and Blank Form Stock Record Card (visible file)
DA Form 2028	Recommended Changes to Publications and Blank Forms
DA Form 2028-2	Recommended Changes to Equipment Technical Publications
DA Form 4790-R	Certification for Distribution of Publication in Support of Government Contract
DA Form 3903	Training-Audio-visual Work Order
DA Form 4569	USAPPC Requisition Code Sheet

(b) DAAG Forms:

DAAG 314 Initial Distribution Sheet and Shipping Instruction

(c) AMC Forms:

AMC 1217-R Schedule for Preparation of Equipment Publications (Manual Form)

AMC 1217-R-E Schedule for Preparation of Equipment Publications (Automated Form)

AMC 2246-R Request for Rescission of Publication

(d) USAPPC Forms:

APDC-B Form 42	Standard Army Publications System (STARPUBS) User Profile Establishment of Publications Account
APDC-S FL 50	Publication Replenishment Action
APDC-S Form 93	Receiving Report
USAPPC Form 0073	Printing Request Commitment
USAPPC Form 272	USAPPC Procurement Jacket

(e) AMCCOM Forms:

AMSMC Form 1015	Publications Running Sheet

(f) AVSCOM Forms:

AMSAV Form 139(J)	Reproduction Assemble Worksheet
AMSAV-M Form 453	Review/Verification Comments Disposition Record
AMSAV-M Form 481	AVSCOM Review/Verification Conference Record
AMSAV-M Form 481A	AVSCOM Review/Verification Record
AMSAV-M Form 491	AVSCOM Review/Verification Record
AVSCOM Form	Processing Requests for Certification of Adequacy of Publications
AVSCOM Form 4	CICA Statement Routing and Tracking Sheet (RTS)
AVSCOM Form 6	PCR Tracking Report No. 1 (TRACK-1)
AVSCOM Form 7	PCR Tracking Report No. 2 (TRACK-2)
AVSCOM Form 8	PCR Tracking Report No. 3 (TRACK-3)

(g) CECOM Forms:

AMSEL-LC Form 6142	"E-Z" DA 260/Project Closeout Request
AMSEL-MA 6057	Job Control Slip (Replaces AMSEL-MR 6057)
AMSEL-ME	6095 Requisition for Services National Maintenance Point
CECOM 1	Editing Review Record Production Control System

(h) CECOM Forms:

AMSMI-LC 43	Maintenance Engineering Directorate Publications Concurrence Sheet

AMSMI-LC 571	Publication Checklist/Release Notice
AMSMI-N 45	Equipment Manuals Program Production (Replaces DRMSI-N Form 45 which may be used)
AMSMI-S 572	Computation of In-House/Other Government Cost for Engineering Change Proposal
AMSMI-S 598	Review of Engineering Change Proposal (Number and System)
DRSMI-S 632	Integrated Logistics Support Checklist for Material
MICOM Form-COMPOS	Request for Composition Services
MICOM Form-COST	Cost Report for In-house Publications
MICOM Form-DA	DA Publications Reprint Action Checklist by Publication Number
MICOM Form-REPRO	Reproduction Assembly Sheet by Publication Number
SMI 1019	Requisition for Printing and Binding Service

(i) TACOM Forms:

STA 4808-E	Publication Initiation and Approval
STA 628	Accomplished Publication Changes (APC) of Reported Discrepancies
STA 629	National Stock Number Screening Record

(j.) TROSCOM Forms:

TROSCOM 1	Reproduction Assembly Worksheet
TROSCOM 2	Job Assignment Sheet
TROSCOM 3	Publication Control Record
TSOP 90-1-1 Form 1	Typesetting and Layout Request
TSOP 90-1-1 Form 2	Illustration Request
TSOP 90-1-1 Form 3	Traveler

(k) FCDNA Forms:

FCDNA Form 7	Publications Requirements Table (PRT)
FCDNA Form 7-1	Publications Requirements Table (PRT)
FCDNA Form 70	Notification of Proposed Joint Nuclear Weapons Publications
FCDNA Form 127	Technical Publications Evaluation Transmittal

(1) Form Letters:

MER-2	Monitor Evaluation Reports (by contract)
Maintenance Form	Maintenance Publications Concurrence

Sheet Valid. Certificate Validation Certificate

(m) Automated Products:

PCN W53BHRO924R USAMC Equipment Pub Schedule
Proponent Update Extract 17 Oct 89,
Proponent: AMCCOM-RI

6. Navy Forms:
(a) OPNAV Forms:
3500/22 NATOPS/Tactical Change Recommendation
4790/66 Technical Publications Deficiency Report

(b) NAVAIR Forms:

4ND-NATSF-5600/126B Reprint Action Request
4ND-GEN-5603/2 Printer Assembly Sheet
NATSF-4121/2 Deviation/Waiver Request
NATSF-4200/2 Review & Action Sheet for Cost Proposals
NATSF-4200/2 Procurement Request Route Sheet
NATSF-4200/4 Record of Release
NATSF-4200/8 Out of Production Funding Card
NATSF-4265/1 Evaluation of NATSF Pricing Comments Sheet
NATSF-4355/2 Engineering Data Inspection Report
NATSF-4650/1 Request for Travel
NATSF-4854/1 Production Control Card
NATSF-4855/1 Technical Manual QA History Card
NATSF-4855/2 Quality Assurance Services Request
NATSF-5050/1 Trip Report
NATSF-5070/19 Aperture Charge-out Card
NATSF-7070/21 Microreproduction Production Card
NATSF-5070/23 Microfilm Production & Issue Sheet
NATSF-5070/46 Microfilm Frame Card Coding Sheet
NATSF-5070/47 MFC Header Card
NATSF-5070/48 Frame Card-History Record
NATSF-5070/53 Dist. Card-NAEC, Ground Supp. Equipment
NATSF-5261/1 Mail Control Record and Route Sheet
NATSF-5216/7 C.O. Routes Sheet
NATSF-5216/9 Correspondence Acknowledgment
NATSF-5216/10 NATSF Memorandum Form
NATSF-5230/1 NIMS Change Request Form
NATSF-5230/2 ADP Services Request & Authorization
NATSF-5330/3 Code 3122 Daily Work Report Sheet
NATSF-5600/1 Interim Revision Record
NATSF-5600/2 Technical MNL Pricing Information
NATSF-5600/3 Publication History Card
NATSF-5600/14 Delivery Order control Card
NATSF-5600/15 Competitive TMCR

NATSF-5600/45	Publication/Forms Request, Disposition Notice
NATSF-5600/52	Publication Record
NATSF-5600/60	Cost Proposal Control Card
NATSF-5600/61	Cost Proposal Status Card
NATSF-5600/62	Cost Proposal Log Card
NATSF-56OO/74	Label (Bummed)
NATSF-5600/87	Cancellation/Change Request
NATSF-5600/89	Publication distribution Transcript
NATSF-5600/92	Publication Number Request
NATSF-5600/103	Master Part Number Transcript
NATSF-5600/104	Master Part Number Applicability Transcript
NATSF-5600/109	Initial Allowance Request
NATSF-5600/1 10	Routing Slip
NATSF-5600/115B	Pubs/Cart. Distr. Mailing Label Request
NATSF-5600/150	Technical MNL/Microfilm Cartridge Notice
NATSF-5600/155	Record of Labels
NATSF-159A/5600/159	Form Letter Technical NML Request
NATSF-163B/5600/163A	IOL System Card No. 1 Card No. 2
NATSF-5600/164	IOL System ACFR, SN TRNS
NATSF-5600/165	Label 165A/B/CJD/E/G/L/M
NATSF-5600/168	Routine Reply Transmittal Sheet
NATSF-5600/169	FMS Technical Data Request
NATSF-5600/170	Cartridge Record Card
NATSF-5600/171	Cartridge Order Sheet
NATSF-5600/172	MIARS Cartridge Action Request
NATSF-5600/176	ECP Record Card
NATSF-5600/180	Research P/N Data Sheet
NATSF-185A/5600/185	Technical MNL Cont Requirement Transcript
NATSF-5600/186	Pub/Cart Distribution Requirement Transcript
NATSF-5600/189	Label
NATSF-5600/190	Label (2PT)
NATSF-5600/192	FMS Technical Data Price Out
NATSF-5600/199	Detailed Negative Instructions
NATSF-5600/2	Technical Manual Pricing Supp. Information
NATSF-5600/204	NATSF Archives Control Record
NATSF-5600/205	Technical Manual Evaluation Form
NATSF-5600/210	IOL System Update Transaction
NATSF-5600/213	Technical MNL Evaluation Record
NATSF-5600/214	Technical MNL Data Card
NATSF-5600/215	Guidance for Release of Logistics Information
NATSF-5600/217	TMCFA Requirement for Out of

	Production Joint Manuals
NATSF-5600/219	Joint Service Out of Production Technical Manual
NATSF-5600/220	Archive Certification Record TAC Code
NATSF-5600/222	NIF Order Form
NATSF-5600/223	NIF Order Form
NATSF-5600/224	Duplicating Request Form
NATSF-5600/225	Overtime Report
NATSF-5600/1921-1	Contractor Cost Data Reporting of Technical MNL
NATSF-5600/507	MFC Header Card Transcript
NATSF-5605/1A/1B	Aero Pub Outfitting Requirement
NATSF-5605/6	Special Pub Address Transcript
NATSF-5605/7	Master Pub Address Transcript
NATSF-7303/1	Memo-Avail of Allotment
NATSF-10460/1	Requirement for Material or Services
NATSF-12450/1	Project Slim
NATSF-12050/8	Navy A/C Technical Div. Master Log
NATSF-13070/107	Work Unit Code Work Sheet

(c) NAVPUB:

5604/2 Printing Funding Log

(d) NAVSEA:

4160/1	Technical Manual Deficiency/Evaluation Report (TMDR)
4160/3	Technical Manual Validation Certificate
4160/4	Verification Discrepancy/Disposition Record
4160/5	Technical Manual Identification Number Request
4160/6	TM Verification Incorporation Certificate
4160/8	NAVSEA Technical Manual Certification Sheet
4160/9	Manual Change Form
4160/10	NAVSEA TNWR, Discrepancy Disposition Record
470/32C	Deleted
4700/32	Deleted
9086/12	Technical Manual Acquisition Requirement Checklist
9086/13	Manual Change Request

(e) NAVSUP:

1042 Delivery Instructions
1088 Forms and Publications Status Report

(f) SPAWAR:

Unnumbered	Technical Adequacy Form
Unnumbered	Technical Manual Pricing Information
4160/1A	User Activity Technical Manual Comment Sheet
4160/4	Technical Manual Identification Number

(g) NAVTRASYSCEN:

4408/10	User Activity Technical Manual Comment Sheet

(h) NETPMSA:

151011	Application for Enrollment/Change Request
155011	Printed Material Release/Discontinue Approval and NAVEDTRA 12061 Update
1550/2	Distribution Statement
1550/7	Distribution/Classification Documentation for NAVEDTRA
1550/8	Review Sheet
1550/22	Reference List for NAVEDTRA
1550/30	Answer Key for Local Command Administered Courses
1550/32	CONFIDENTIAL Test and Course Comment Sheet
1550/35	Stock Deficiency Report
1550/37	TRAMAN Review Worksheet
1550/38	Project Status Report
1552/1	Project Planning Schedule Worksheet
1552/2	Graphics Submission Checklist
1552/7	Art Source Sheet
1552/8	Route Art Sheet
1552/21	Errata Printing Request

(i) Other Forms:

NDW-NPPSO/5600/12	Procurement Log
NAVELEX 4160/3	Specification Compliance Review Comments
DPS 5603	Publication Running Sheet
MIARS	Budget and Funding Form
NPPSDO PM 5216-25	Shipping Labels (Bulk) Work Summary Form
NPFC DD 1348-1	DoD Single Line Item Release/Receipt Document

(j.) NAVAIR: Automate the processes and functionality currently accomplished with the following reports and documents:

Joint Interest List (JIL)
Master Data Package
Source Data Package
Statement of Work
Price Proposals
Source Data Worksheet
Manual Change Release
Rapid Action Changes/Interim Rapid Action Change
TMCR
TMCR Price Proposal
Record of Source Data Incorporation Format guide
Out of Production TMCR Transmittal Letter
Publications Order Sheet
Packing Slip
Master List of Engineering Cognizance Assignments
Printing Control Log

(k) NAVSEA: Automate the processes and products of the E-STEPS and M-SPEC NUSs associated with TM functional management. These processes and products include, but are not limited to:

TMCR
TM Indices
TMI Assignments
TM Distribution Lists
TM Deficiency Reporting
Advance Change Notice
TM Customer Service Requests
TM Management Reports

(l) SPAWAR: Automate the processes and functionality currently accomplished with the following reports and documents:

SPAWAR TDC Customer Service Request
SPAWAR TDC Task Assignment
Technical Adequacy Form (S&NWSC)
Technical Manual Research Check Off (S&NWSC)
Technical Manual Update Profile Sheet (S&NWSC)
TM Update Profile Sheet (tracking) (S&NWSC)
CG-66 USS England Enhanced Ships Technical Publication System Index, PUB SEQ, Vol 2, 9 Jan 90
Publication Tracking Sheet
S&NWSC Form (Space and Naval Warfare System Command Form)
(TMIN) Technical Manual Identification Manual Feedback Record (S&NWSC)
(TMIN) Technical Manual Identification Number

Assignment For (S&NWSC)
SPAWAR Certification of TM Adequacy Program Management within SPAWAR Complete Certification
SDLM Change Notice - Standard Depot Level Maintenance Manual

(m) NPFC: Automate the processes and functionality currently accomplished with the following reports and documents:

Print Notice
Distribution Verification (NPPS)
FOP (Forecast of Procurement)
FPSR
Print/Reprint Requirement
Reqn Status
ROD Reply
Catalog Change Notice Disposal Orders
Excess Report Reply
Request for Print Sample
Discrepancy Receipt Report Reply
Catalog Change Notice
Disposal Order
Discrepancy Report Form
Stock Received Notices
Stock Location Record Update
Issue Release Requirements Documents
Initial Outfitting Distribution
Requirements Request Notice Information
Referral to NSCs for Issue
Referral to Carrying Points for Issue
Referral/Request to Sponsor for Issue
ROD Reply/Referral
Requirement Status
Receipt Record
Sponsor Authorization for Issue

(n) NETPMSA: Automate the processes and functionality currently accomplished with the following reports and documents:

Art Count Variation Form
Commander Approval
Job Information Sheet
Control Sheet - Composition Branch
Printing Division Page Proof Check-Off Sheet
Stock Ordering Number Request
Flow Sheet For In-House Composition
Composition Negative/Repro Storage List
Errata Sheet
Training Material Receipt
Non-Resident Training Course Checkoff List

Request for Retirement Points Approval
Training Manual File Card
NRTC File Card
Composition Branch Production Log
Editorial Review Comment Sheet
Composition Log-In Sheet
Art Count Sheet
Production Services Monthly Report
Notice to Publish Information
Production Request
Project Status Report
Printing Funding and Quantity Report

(o) NPPS: Automate the processes and functionality currently accomplished with the following reports and documents:

Distribution Verification (NPPS)
Requests for Reproducibles
Requisition Status
Request for Print Sample Discrepancy Receipt Report
Reply Requirement Status
Receipt Record
Print Notice
Stock Received Notices Discrepancy Report Form
Print/Reprint Requirement

7. Air Force Forms:

(a) AF Force Forms (reference AFR 0-9)

310 Document Receipt and Destruction Certificate
349 Receipt for Documents Released to Accredited Representatives of Foreign Nations
585 Contractor Data Requirement Substantiation
947 Recommendation for Change of Publication (Flight Publications)
105F-2 Stock Record Card

(b) AFTO Forms (reference AFR 0-9)

4 TO Verification Completion/Acceptance Certificate
22 TO System Publication Improvement Report and Reply
27 TO System Publication Change Request
43 Request for USAF TO Distribution Code Assignment or Change
82 Certificate - Proofing TCTOs/KITS
110 TOs/CPIN Distribution Record
124 Computation of Technical Order Reading Grade

Level
131 TO Index Routine and Annual Check
158 TO Review Comment Sheet
187 TO Publication Request
215 Notification
221 ADP Requisition for Air Force TO/CPIN
273 Initial Distribution Label (for Unclassified TO Distribution)
274 Initial Distribution Label (for Classified TO Distribution)

(c) AFLC Forms (reference AFLCR 0-9)

6 United Parcel Service Daily Dispatch Record
103 Non-Conforming Technical Assistance Request and Reply
189 TO Numbering, Indexing and Control Record
190 TO Numbering, Indexing and ADP Control Record (Continuation Sheet)
252 TO Publication Change Request (PCR)
254 Reproduction Assembly Sheet
407 TO Reproducible Material Record
531 TO Receiving/Processing Record
540 Technical Order Distribution Control Activity (TODCA) TO Management Record
541 TODCA TO Management and Issue Record
632 TO/CPIN Distribution and Record Request
654 TODCA Master Record Source Document
873 TCTO Requirements
874 TCTO Supply Data Requirements
875 TCTO Programming Document
2598 TO Index Source Document
2924 Managing TO and RT Editor CIR/ADP Record Maintenance
2929 Technical Order Receiving Record
3995 Interim TCTO Safety Supplement, Operational Supplement Coordination Record
4779 Request for Technical Order Reprint

(d) AFSC Form (reference AFSCR 0-9)

5164 TO Verification Data

(e) Air Force Technical Manual Contract Requirements, TM-86-01.

an. Provide the Army and Air Force the capability to initiate and maintain fee for services program.

2.5.1.2 Tri-Service Assumptions.

a. Long-haul and local telecommunications capabilities will be available from either government or private industry to support the implementation of the system.

b. Existing TM management data will be converted into the system by the prime contractor.

c. Conversion of existing TMs will be necessary to provide an effective and efficient solution to the DoD-wide use of digital TMs.

d. Facilities will be available, but they may have to be modified to support installation and operation of the ADS.

e. The system will plan, program and budget for the conversion to digital form, all existing TMs and TM management data identified by the services.

f. The data base specification will be available for IETMs to facilitate the storage and update of IETM data.

g. The number of TMs in DoD will continue to increase.

h. Current organizational responsibilities will be modified as a result of efficiencies from the system.

i. The Services' TM policy and guidance will change as a result of efficiencies from the system.

j. The Services' TM specifications and standards will be integrated into the system.

k. The Services' resources will be used to @n all but the initial cadre of operators and users. The Services will provide computer literacy training.outside the scope of the system.

l. The system will manage TMs in many different formats/media, including, but not limited to:

1. Paper
2. Raster
3. ASCII with SGML
4. IETMs
5. IGES/CGM
6. Multi-Media

2.5.1.3 Tri-Service Constraints.

a. Existing system capabilities will remain in place until the complete functionality of that system is replaced by the joint TM system, and is tested, evaluated, and accepted by the using organization.

b. The ADS implementation must be accomplished within the funding constraints imposed by the DoD.

c. The ADS cannot be implemented without an infrastructure in place.

d. Manpower/personnel/training resources may not be available for initial implementation. The ADS cannot be implemented until the workforce at all levels is prepared to receive and operate the software and hardware.

2.5.2 Tri-Service ADS Functions.

The proposed ADS will permit direct, on-line interactive communications for data distribution, feedback, approvals, and coordination between TM users and managers. Each of the six key areas is discussed in terms of the ADS requirements. In addition, the required automation of the I/O/C and processes associated with each functional area is identified. The term "Automated" means that the process will be completely automated, while "Partially Automated" means that portion(s) of the process will be automated while other portion(s) will require some manual effort. The processes associated with the I/O of each functional area identified in the following paragraphs are defined in more detail in Section 3, Detailed Characteristics. Definitions of the I/O can be found in the Glossary in Appendix 1. Functional performance requirements that apply to the six functional areas are:

a. The ADS must be able to support the user seven days a week, 24 hours a day.

b. Alternate means of communication must exist to provide for uninterrupted transmission of data.

c. The ADS must be able to operate in conditions ranging from normal peacetime operations to supporting contingency/wartime operations.

d. System degradation will be minimized and transparent to the user.

e. The ADS operation may be located in office environments. Some locations will be temperature, humidity, and power controlled, while others may not.

f. The ADS will provide report generation capability for pre-determined reports and ad hoc queries.

g. The ADS will provide TM change status tracking throughout the network.

h. The ADS capabilities must provide for conversion of paper and digital TM data for use in system applications and for electronic receipt and transmittal of TM data throughout the system.

i. The ADS capabilities must include electronic means for generation, receipt, and transfer of TM data using the Automated Digital Information Network (AUTODIN), the Defense Data Network (DDN), and/or other media as required.

2.5.2.1 Manage TM System (A1).

TM management refers to the activities associated with: a) the establishment and dissemination of policy and guidance; b) the generation of system level reports; c) the control of audits; and d) the improvement of operating procedures. The ADS will support management oversight of TMs and provide management products, such as planning, scheduling and budgeting information, to TM managers at all levels within the TM system. Configuration management of the ADS will be supported within this functional area. Management of commercial manuals is to be included within the ADS. For commercial manuals for which the Govemment has the rights to digitize the text, management will be the same as organically developed technical data. For commercial manuals for which the Govemment does not have the rights to digitize and control the content, only the management data will be maintained. The I/O/C associated with the management of the TM system supported or automated by the ADS are shown in Table 2-2, ADS Functions for Manage TM System.

TABLE 2-2, ADS Functions for Manage TM System

Manage TM System	I	O	C	A	PA
TM Program Management Requirements	X				X
TM Policy Requirements	X				X
Request to Rescind TM	X			X	
Publication Numbering Request	X			X	
Publication Schedule Information	X			X	
Rescinded TM Review List (Reply)	X			X	
Request for Rescinded/Active TM	X			X	
Rescinded TM Review List	X			X	
TMs (from Publishing Facility)	X			X	
Public Law			X		X
DoD Policy and Guidance			X		X
TM Policy and Guidance			X	X	
TM Program Resources			X		X
Updated TM Index			X	X	
TM Improvements System Status Report			X	X	
TM Policy and Guidance		X			X
Program Support		X			X
TM Policy Requirements		X			X
Updated TM Index		X		X	
Publication Number(s)		X		X	
Consolidated Publication Schedule		X		X	
Rescinded TM Review List		X		X	
Updated TM Repository Index		X		X	
Rescinded/Active TM		X			X
Rescinded TM Review List (Reply)		X		X	
Account Reconciliation Data			X	X	

ADS services are required to:

a. Communicate with other users throughout the network on actions taken, or required to be taken, on TM management issues.

b. Author TM policy and guidance documentation, coordinate the resulting documents, and forward documents to publishing.

c. Validate, coordinate, and control the assignment/cancellation/renumbering of TMs.

d. Update, TM indexes.

e. Determine/assign TM storage locations) in the TM repository, and update repository files.

f. Develop/submit budget requirements.

g. Distribute copies of rescinded TM to requesters.

h. Support management of selected rescinded TMs for SAP.

i. Provide control of access profiles.

j. Provide management data and reports required to support the day-to-day operations of the system and support to SAP, Security Assistance Technical Order Data System (SATODS), Foreign Military Sales (FMS), Joint Munitions Effectiveness Manuals (JMEMS) and CPIN, as required.

k. Provide for indexing and cross referencing of TM data by weapon system, equipment configuration and others as defined.

l. Provide access to computer based instruction in an on-line or off-line mode to prepare the end users to operate the ADS Manage TM System Module.

m. Develop the functionality in the system to include automated user inputs for recommended TM changes, recommended change tracking and status, and TM change feedback.

n. Support "fee for services" activities (for Army and Air Force only).

2.5.2.2 Acquire TMs (A2).

Requirements for new or revised TMs result from weapon system acquisition, equipment acquisition, naval and/or occupational standards, sponsor requirements, and modification programs. TM acquisition includes planning, development of government TM planning documentation, the review and approval of that documentation, and control of the TM acquisition and development efforts.

The ADS will support TM managers in the development of planning and management documentation in the acquisition environment In addition, it will support coordination by all interested parties and will establish a TM acquisition data base which addresses all aspects of TM development This data base and its application will include, but not be limited to, information on TM requirements, quantities, schedules, and configuration management There will also be cost and schedule information in the acquisition data base, which will be used to monitor the TM program’s progress, perform cost analysis, track milestones, and develop budgetary information for input to acquisition program funding requirements. The I/O/C associated with Acquire TMs

automated or supported by the ADS are shown in Table 2-3, ADS Functions for Acquire TMs.

TABLE 2-3, ADS Functions for Acquire TMs

Acquire TMs	I	O	C	A	PA
Tasking Documents	X				X
TM Acquisition Reference Documents	X				X
Comments on Documentation for TM Acq Planning	X			X	
New TM Policy Requirements	X			X	
TM Acquisition Planning Documents	X				X
Publication Change Package	X			X	
Consolidated Publication Schedule	X			X	
Preliminary/Draft TM	X			X	
TM Development Plans and Reports	X			X	
TM Source Data	X			X	
TM Development Feedback	X			X	
RFP Input		X			X
Meeting/Conferences/Schedule Requirements		X		X	
TM Acquisition Planning Documents		X			X
Publication Numbering Request		X		X	
Publication Schedule Information		X		X	
TM Development Feedback		X		X	
Comments on Documentation for TM Acq Planning		X		X	
Preliminary/Draft/Formal TM		X		X	
Preliminary/Draft TM		X		X	
TM Development Plans and Reports		X		X	
TM Policy and Guidance			X	X	
Meeting/Conference/Schedule Requirements			X	X	
TM Specifications and Standards			X		X
Authorization Documents			X	X	
Consolidated Publication Schedule			X	X	
Publication Number(s)			X	X	

ADS services are required to:

a. Retrieve and print out selected data on demand (e.g., information on TM requirements, quantities, schedules, or configuration data).

b. Create and update contract specific Technical Manual Contract Requirements (MCRs).

c. Provide TM related Data Item Descriptions (Ref. DoD STD 1790) for on-line retrieval and reference only.

d. Create, maintain and update validation/verification schedules, task status, and identify/update completion date and designation witnessing government official.

e. Review digitized contractor submitted reports.

f. Review and comment on contractor submitted TMs and mute material to other interested offices.

g. Calculate Reading Grade Level.

h. Provide the capability to request publication number and stock number (Navy only) for new manuals and for changes and revisions to TMs.

i. Provide the capability to create Technical Manual Management Plans (TMMPs) and Verification Plans (VPs) tailored to a program specific need.

j. Create the verification status page from data maintained by the system on verification progress.

k. Provide the capability to retrieve and screen selected acquisition documents.

l. Provide the capability to acquire and maintain cost data by:

1. Contract number and date of award.

2. Contract Line Item Number (CLIN) and Sub-Line Item Number (SLIN).

3. Contract Element Line Item Number (ELIN).

4. Contract initial funds (TM acquisition cost).

5. Additional contract funds required.

6. Funds allocated for TMs by weapon system and item for multiple contracts for TMs.

7. TM cost by TM type on a per-page basis.

8. General budget data and information.

m. Provide the capability to access Technical Manual Specifications and Standards (TMSS).

n. Update Navy indexes by providing data and information

to the NPFC PUB 2002.

o. Schedule, assign responsibilities for, and track accomplishment of TM quality control processes.

p. Project requirements for and track expenditures of costs, including TDY funds, for verification efforts, witnessing validation and attending In-Process Reviews (IPRs).

q. Maintain Army TM indexes by providing and updating data and information obtained during development.

r. Receive, store, verify contents, and distribute digital TM files and data bases received from government and contractor sources.

s. Develop the functionality in the system similar to LOGPARS system for the TM Integrated Logistics Support (U-S) process and provide for incorporation of service-specific TM planning, scheduling, and tailoring capabilities and knowledge-based data bases.

t. Provide the capability to re-use TM source data in the acquisition process.

u. Provide access to computer based instruction in an on-line or off-line mode to prepare the end users to operate the ADS Acquire TM System Module.

v. Provide capability to perform conformance checking of TMs delivered in accordance with approved Military Standards and Specifications. This includes conformance checking with respect to graphics, text, Document Type Definitions (DTDS) and output specifications.

x. Generate "should cost" information for TM efforts.

2.5.2.3 Improve TMs (A3).

TM improvement refers to the identification and correction of TM problems and deficiencies. The ADS will support management of TM improvements to include generation of a recommended change, tracking and administrative reviews of recommended changes, technical or engineering analysis of the recommended changes, approval/disapproval of recommended changes, and generation of publication change requests. The I/O/C associated with Improve TMs automated or supported by the ADS are shown in Table 2-4, ADS Functions for Improve TMs.

TABLE 2-4, ADS Functions for Improve TMs.

Improve TMs	I	O	C	A	PA
Rescinded/Active TM	X			X	
Perceived Deficiency	X				X
TM Policy Changes	X			X	
Recommended Change	X			X	
Technical Analysis Results	X			X	
Recommended Change (Admin Review)	X			X	
TM Source Data	X			X	
Recommended Change (Status Feedback)		X		X	
Recommended Change		X		X	
TM Improvement System Status Reports		X		X	
Publication Numbering Request		X		X	
Publication Change Package		X		X	
Recommended Change (Admin Reviewed)		X		X	
Interim Technical Manual		X		X	
Request to Rescind TM		X		X	
Technical Analysis Results		X		X	
TM Policy and Guidance			X	X	
Recommended Change (Status Feedback)			X	X	
Publication Number(s)			X	X	
TM Improvement System Status Reports			X	X	
TM Specification and Standards			X		X
Authorization Documents			X		X

ADS services are required to:

a. Create recommended changes.

b. Acknowledge, review, coordinate, comment and approve recommended changes.

c. Aggregate deficiency reports concerning like items.

d. Review and comment on the TM and associated recommended changes.

e. Maintain source data packages.

f. Provide the capability to request a TM change or revision number.

g. Calculate Reading Grade Level.

h. Provide access to the TM and extraction of selected material (text and graphics) for modification and transmittals.

i. Provide the capability to scan selected documents for on-line retrieval.

j. Link the changed/modified TM with the applicable problem report change recommendation, or suggestion.

k. Prepare, review, approve and distribute advance or interim TMs.

l. Provide on-line access to TM recommended change status.

m. Update TM indexes to reflect changes planned and published.

n. Receive, store, and verify contents of digital TM change files and data bases received from government and contractor sources, automatically notify the proponent TM manager that the files have been received and verified, provide the location of stored data, and automatically update all applicable indexes.

o. Project requirements for and track expenditures, including TDY funds, TM changes, IPRS, and validation/verification efforts.

p. Provide the capability to manage the incorporation of Modification Work Orders (MWOS) into TMs.

q. Provide the capability to re-use TM source data during the Improve process.

r. Provide access to computer based instruction in an on-line or off-line mode to prepare the end users to operate the ADS Improve TM System Module.

s. Develop the functionality in the system to include automated user inputs for recommended TM changes, recommended change tracking and status, and TM change feedback.

2.5.2.4 Publish TMs (A4).

The TM publishing process includes development of reproducible TM masters, control of reproducible material, preparation of reproduction packages, tracking status of publishing activities, and reproduction of TMs. The ADS will support the preparation of the data in a medium suitable for reproduction in sufficient quantities to meet service

requirements. The ADS will support TM requirements in a CALS compliant digital environment, and ensure that the user has access to TM data in hard copy or digital format through retrieval and display software provided within the program. The I/O/C associated with Publish TMs automated or supported by the ADS are shown in Table 2-5, ADS Functions for Publish TMs.

ADS services are required to:

a. Compose, edit, review and approve reproducible masters including the integration of text and graphics.

b. Prepare requests for reproducible masters.

c. Prepare amended reproduction requests.

TABLE 2-5, ADS Functions for Publish TMs

Publish TMs	I	O	C	A	PA
TM Index	X			X	
Preliminary/Draft/Formal TM	X			X	
Publication Change Package	X			X	
Reproducible Master (Existing)	X			X	
Reproducible Master (New)	X			X	
Request for Reproducible Master Return	X			X	
Amended Reproduction Request	X			X	
Reproduction Package	X			X	
Reproducible Master Tracer Action	X			X	
Request for Reproducible Master	X			X	
Reproducible Master (from Publishing Facility)	X			X	
Request for Reproducible Master		X		X	
Reproducible Master (New)		X		X	
Material Inspection and Receiving Report		X		X	
Amended Reproduction Request		X		X	
Reproduction Package		X		X	
Reproducible Master Tracer Action		X		X	
Publication Schedule Information		X		X	
Distribution Verification (Publisher)		X		X	
TMs (from Publishing Facility)		X		X	
Reproducible Master (from Publishing Facility)		X		X	
Reproducible Master (Existing)		X		X	
Request for Reproducible Master Return		X		X	
TM Policy and Guidance			X	X	
Distribution Materials			X	X	
Print Requirement			X	X	
Authorization Documents			X	X	

d. Establish reproduction master locator files.

e. Identify and update reproduction master locator files.

f. Provide interface with electronic publishing systems.

g. Prepare reproduction requests.

h. Update TM indexes to reflect changes planned and published.

i. Receive, store, and verify contents of digital TMs, TM change files, and data bases received from government and contractor sources, automatically notify the proponent TM manager that the files have been received and verified, provide the location of stored data, and automatically update all applicable indexes.

j. Provide access to computer based instruction in an on-line or off-line mode to prepare the end users to operate the ADS Publish TMs System Module.

k. Provide on-line access to reproduction request status.

2.5.2.5 Stock TMs (A5).

Stock TMs refers to the activities associated with the receipt, storage, and maintenance of records associated with all TMs in the inventory. The ADS will support the management and maintenance of the TM inventory. This support will be provided for both the paper and digitized inventories. In addition, the ADS will provide storage for TM data bases which will permit configuration control, back-up for each location, and historical filing. The I/O/C associated with Stock TMs automated or supported by the ADS are shown in Table 2-6, ADS Functions for Stock TMs.

TABLE 2-6, ADS Functions for Stock TMs

Stock TMs	I	O	C	A	PA
Publication Schedule Information	X			X	
Distribution Verification (Publisher)	X			X	
Stock Status Update	X			X	
Distribution Materials	X			X	
TM Stock Information	X			X	
TMs (from Publishing Facility)	X			X	
TMs (Issued)	X			X	
TMs Customer Return	X			X	
Distribution Materials		X		X	
Print Requirement		X		X	
TM Requisition Status Notification		X		X	
TM Stock Information		X		X	
Material Inspection and Receiving Notification		X		X	
TMs (Issued)		X		X	
Stock Status Update		X		X	
Shipped TM		X		X	
Funds Level Report			X		X
TM Policy and Guidance			X	X	
TM Distribution Requirement			X	X	

ADS services are required to:

a. Provide access/updates/additions/deletions to TM inventory information in the data base.

b. Establish/verify distribution requirements (initial and replenishment).

c. Provide status on TM requisitions.

d. Create TM distribution materials.

e. Forecast/establish/update/change reprint orreproduction requirements.

f. Assign/identify TM stock locations.

g. Maintain TM inventory balances and reorder points.

h. Update inventory records when TM stock is received/shipped.

i. Forward requests for unstocked items to the appropriate repository or alternate stocking point.

j. Provide access to computer based instruction in an on-line or off-line mode to prepare the end users to operate the ADS Stock TMs System Module.

2.5.2.6 Distribute TMs (A6).

The activities associated with distribution which the ADS will support include: tracking requests for TMs; distribution or allocation of TMs, changes and revisions; and the routing of au basic manuals and changes to a repository. The ADS will support the establishment, maintenance and identification of accounts and distribution requirements including National Guard and Reserve units. The ADS will permit auditing of TM distribution, updates, and requisitions, for both unclassified and classified TMs. The media and transmission means will ensure the data is accurately received in the required format. The I/O/C associated with Distribute TMs automated or supported by the ADS are shown in Table 2-7, ADS Functions for Distribute TMs.

TABLE 2-7, ADA Functions for Distribute TMs

Distribute TMs	I	O	C	A	PA
TM Need	X				X
Distribution Record Updates	X			X	
Automatic Distribution Request	X			X	
TM Account Assignment/Change Request	X			X	
Receipt Record	X			X	
TM Request (Non-Recurring)	X			X	
TM One-Time Request	X			X	
Deficient/Excess Requirement	X			X	
Shipped TM	X			X	
Filed TM	X			X	
Automatic Distribution Request		X		X	
TM Account Assignment/Change Request		X		X	
TM Account		X		X	
TM Distribution Requirement		X		X	
Request for Rescinded/Active TM		X		X	
TM Reconciliation Data		X		X	
TM Request (Non-Recurring)		X		X	
Filed TM		X		X	
Distribution Control Record		X		X	
Receipt Record		X		X	
Distribution Record Updated		X		X	
Deficient/Excess Requirement		X		X	
TM Policy and Guidance			X	X	
TM Requisition Status Notification			X	X	
TM Index			X	X	
Distribution Control Record			X	X	
TM Reconciliation Data			X	X	
TM Account			X	X	
Account Reconciliation Data		X		X	

ADS services are required to:

a. Maintain TM account data (including address and quantity).

b. Assign/change TM accounts.

c. Verify and maintain TM requisition information.

d. Provide TM account reconciliation data.

e. Verify distribution requirements.

f. Generate requests for rescinded TMs.

g. Establish total TM requirements.

h. Requisition TMs.

i. Perform file maintenance on TM accounts.

j. Verify and maintain records of TM account reviews.

k. Receive, store, forward, and access TM requisition status.

l. Distribute TMs to accounts (Navy - initial distribution only).

m. File TMs.

n. Reconcile TM accounts with account reconciliation data, updated publication number data, and TM records.

o. Provide access to computer based instruction in an on-line or off-line mode to prepare the end users to operate the ADS Distribute TMs System Module.

2.5.3 Summary of Improvements.

The following paragraphs describe the improvements to TM management which will be realized as a result of the ADS.

2.5.3.1 Manage TM System (A1).

The ADS will provide improvements in the management and standardization of TM guidance (i.e., policy, regulations, specifications, and standards). This standardization will reduce interpretation and the need for waivers, thus reducing costs and specialized formats. In addition TM numbering/publication numbering and indexing processes (e.g., development, maintenance, distribution, and allocation) will be automated, thereby reducing confusion, errors and manual record keeping.

2.5.3.2 Acquire TMs (A2).

TMs will be acquired, received, stored, and distributed in digital media. This capability combined with standardization of the acquisition processes will reduce the need for unique and sometimes dual (i.e., paper and digital media) acquisition requirements, thereby reducing TM acquisition costs. The acquisition of TMs will be managed and controlled with the support of the ADS which will permit planning, updating, near

real-time responses to status queries, and audits for contract compliance.

2.5.3.3 Improve TMs (A3).

The improvement process will be shortened and simplified. Changes will be generated on line and forwarded to the requiring agency, organization, or next in command via the ADS. There will be an improvement in the configuration control mechanisms which will significantly reduce errors due to manual processing.

2.5.3.4 Publish TMs (A4).

The automation of the activities associated with publishing will reduce handling time as well as provide more accurate and standardized configuration control. Managing digital TM data will reduce print requirements. The information necessary for distribution (e.g., mailing addresses, authorizations for distribution, and printing requirements) will be automated and controlled thus reducing efforts and eliminating delays.

2.5.3.5 Stock TMs (A5).

The ADS will eliminate paper forms and records for TM inventory management. It will reduce the need for large storage facilities to warehouse paper TMs through the digitization of TM data, which will be entered into a data base. The improvements in the area of stocking TMs include the reduction of warehouse space, automation of the inventory records, and the capability to make status inquiries with near real-time responses. In addition, on line requisitions and stock level requirements can be matched, and quality control checks can be performed, verified, and recorded via the ADS.

2.5.3.6 Distribute TMs (A6).

Distribution requirements will be automatically established and maintained to reduce error rates associated with manual processes. Distribution via digital media will permit printing on demand as close to the requesting agency as possible. Most, if not all, changes can be distributed digitally and verifications of distribution can be confirmed via the ADS.

2.5.3.7 Other Improvements.

There are additional improvements that cannot be categorized by functional area. These improvements are the result of a cumulative effect of improvements in more than one functional area, or as a result of applying automated technology solutions to technical processing problems. These improvements include:

standardization of methods and procedures; a reduction in backorders; a decrease in redundant data; faster responses to TM requisitions and other requests (e.g., change or publication); near real-time responses to management queries; and reduction of lost records or data. Specific improvements that will be received from the ADS overall are:

a. Provide On-line Information Access for Management Decision-Making. Management decision-making will be enhanced at every level and for every function with the capability to access and extract all needed information electronically. The ADS will be designed to provide direct, on-line communications. Source information will include technical data, budgets, schedules, tracking and controlling data bases, review cycle data, authorizations and approvals, and report generation capabilities from multiple sources.

b. Provide Integrated Data. Integrated data base management systems are essential to ensure compatibility, interoperability and standardization between systems. Access to data in differing data bases will be transparent to the users. Information can be pulled from a number of data sources and integrated into a single format for use in decision-making and implementation.

c. Provide Better Tracking, Control, and Configuration. The ADS will eliminate the need for manually and independently tracking and controlling TM functions, especially in the areas of acquisition, improvement, publication, and stocking of TMs. The ADS will provide a means to coordinate all processes that are tracked, such as: policy and guidance development and approval; acquisition planning documentation; publication numbering; TM requisitions; index updates; rescissions; recommended changes; account activities; distribution; as well as review and approval activities. Users will be able to determine the current status of any activity electronically.

d. Accelerate Management Processes. By automating access to needed information, management processes will be accelerated. Manual processing time will be reduced or eliminated Waiting time for data comments, approvals, etc., will also be reduced as this information will be available on-line. Management processes for the TM system include:

planning; scheduling; budgeting; controlling; implementation; operation; and maintenance.

e. Reduce Errors. With many different organizations, users, and levels of management involved in making TM decisions, there are numerous opportunities for errors to occur. Errors are

possible because of duplication of effort, mislabeled or misdirected requests, incomplete or incorrect forms, outdated information, long waiting periods for replies or comments, and lack of adequate cross-checking controls. The ADS will reduce error@ potential because it will provide instant access to the most current data, update capabilities, on-line editing and cross-checking capabilities for error detection and correction, data integration, interactive communications, and other necessary improvements.

f. Provide Accurate, Timely Information to Management and Users. Accurate, timely information refers to the most current, updated information that can be provided in a convenient manner to users so they can effectively perform their jobs or tasks in a manner consistent with time, budget and other constraints or demands. Accurate, timely information is important to all TM functions, particularly in the areas of TMSS, TM indexes, rescinded TM, acquisition planning documents, schedules, distribution and stocking requirements, TM accounts, TM account management, and TM recommendations/changes/improvements.

g. Simplify TM Requisition Process. The TM requisition process is an inherent aspect of TM distribution. It includes TM account assignments/changes, management of TM distribution requirements and TM accounts, TM account distribution and periodic review of the TM accounts. Much of this process will be simplified when TM accounts are assigned automatically and distribution requirements are consolidated. TM accounts can be updated and maintained electronically.

h. Reduce Manual Operations. Manual operations are defined as those operations which require significant human intervention and/or manpower efforts to complete in paper or hands-on mode. These include: manual tracking and reporting activities; form completion, distribution and approval-, data entry tasks without benefit of communications-computer systems (or with limited access to on-line systems); inventory and warehouse management; and printing and distribution of TMs. The ADS will eliminate many clerical tasks, provide on-line processing, printing and distribution capabilities, and reduce the need for manual intervention. Some functions will be completely automated. Others will be accomplished electronically through man-machine interfaces and other automated support activities.

i. Reduce Need for Physical Storage Space. Printed TMs are currently stocked and maintained in warehouse facilities which are costly and inefficient to maintain. The TMs require significant amounts of storage space, in addition to high manpower requirements for receiving, binning, distributing and

reordering stock. The ADS will eliminate paper forms and record-keeping for inventory management. It will eliminate the need for large storage facilities to warehouse TMs through the digitization and subsequent publication and automated distribution of TM data.

j. Reduce Time Needed for Processing Routine Changes. Routine changes are those changes which do not require emergency or urgent responses. These are changes reported and/or made "as required." There are a number of administrative and technical reviews and approval processes at various levels which must be completed, evaluated, tracked, and implemented. These are currently accomplished both manually and digitally. The ADS will reduce suspense times, provide interactive access to current data, and reduce or eliminate the paperwork required to produce a routine change.

k. Replace Outdated Technology with Updated Technology. Current technologies are both outdated and inefficient in terms of system (hardware and software), storage and retrieval capabilities, data integration, data backup and recovery, interfaces, and processing modes. The ADS will provide on-line interactive processing instead of the current batch mode, and will increase the number of transactions that are possible. It will also provide increased storage capabilities for digital data on digital media, and take advantage of proven standards and technologies that will meet the services' TM needs into the next century.

l. Control Costs, Schedules. Control of costs and schedules are critical aspects of TM management and acquisition. Costs are incurred at every step in the TM process, especially in the creation and maintenance of TM policy and guidance; development of TM acquisition planning documentation, including documentation necessary for contractors; and review of documentation. Schedules are developed to provide milestones for tracking and completion of these tasks. The ADS will provide current cost and scheduling data in integrated data bases for effective management and control. Costs will be reduced as the ADS eliminates the manual processes and duplication incurred at various levels, and as economies of scale am implemented in system development and operation. Schedules will be updated on-line as needed, and will reflect current milestones, suspense dates, follow-up activities, and other data necessary for efficient decision making and control.

m. Improve Inventory Management and Distribution Systems. The current inventory management and distribution systems are primarily dependent on manual processes to support paper TMs. When TMs are requested and printed, a predetermined number of the

TMs are sent to the warehouse to fill the established stock levels. These are physically unloaded and placed in assigned (loose-issue) bins to remain in inventory until requisitions are filled. As TMs are digitized and provided by the ADS, the need for such manual processes will decline. The ADS will suppose inventory management initially by providing or enhancing inventory tracking systems, notification systems interfaces, location assignments, and stock level transaction/reorder data. With fully digitized data, TMs will be produced, stored and distributed electronically with minimal handling, reprinting, and storage requirements.

n. Provide Interactive On-line Reproduction Process. When all the planning, development, approval, and change processes are completed, a reproducible master is developed, prepared and sent to the publisher for reproduction and distribution. The system win use interfaces to provide effective two-way communications at all levels for updating, maintaining and using TM data. The ADS, with integrated data, will enhance the reproduction process by making all relevant data readily accessible, providing the capabilities to download or convert to digital media, and store the data electronically. When the TM is ready for reproduction, it will be transmitted on line for reproduction and use, either in digital or paper format, depending on the needs, location, and systems available to the user.

o. Accelerate TM Distribution Time. TM distribution is dependent upon TM account assignment, distribution requirements, TM account maintenance, and periodic reviews as well as availability of stock or reproducible material. Distribution will be accelerated with automation, with TM data transmitted to the distribution or reproduction point for downloading to digital media or printing. With the ADS, distribution data will be entered into the system thus eliminating manual forms currently associated with distribution. Suspense dates and approvals will be tracked on-line, which will also reduce the time needed for decision making and accelerate the distribution process.

p. Ability to Acquire, Distribute, and Use Digital Data. Currently the services do not have the capability to acquire, distribute and use digital data. The ADS will provide these capabilities and allow them to receive, manage and distribute the data electronically. The ADS will also permit the services to meet the DoD Computer-aided Acquisition and Logistics Support (CALS) initiative to standardize and specify delivery and use of digital technical data by government agencies.

q. Better Utilization of Manpower. As manual processes are eliminated or changed to support the requirements of the ADS, changes to manpower may occur. The ADS will reduce

inefficiencies and duplications of effort, possibilities for errors, and labor intensive tracking, updating, reviewing, printing, stocking, and distributing functions. In particular, the efforts currently required to reformat data from one required format to another will be eliminated through the use of integrated data. Personnel at all levels will have more time available to perform other tasks and improve overall productivity.

r. Improve User Access to TM Data. Current TM information is not readily available to users at all levels. TMs may be out of stock, undergoing modifications, in development or review cycles, etc. Users cannot always access the data they need, and long delays are the norm. The ADS will provide the most current, timely data through integrated data bases, and interactive on-line access at many levels of use and at world-wide facilities. The ADS will also reduce the number of organizational elements involved in processing requisitions and the amount of time needed to complete the transactions. These improvements will help users access TM data more efficiently.

s. Maximize Existing System Utility. The existing systems used to support TM functions will be incorporated, enhanced, or replaced by the ADS in order to take advantage of current technologies that will significantly upgrade system capabilities.

t. Structure Management Reports to the Needs of the User/Requester. The ADS will provide an integrated data base management system which will incorporate the TM data or eliminate forms and the manual processes associated with them, and allow the users to tailor standardized reports to fit their own requirements.

u. Adapt to Future Requirements. The ADS will replace 1960s era technologies and upgrade the entire TM system. The ADS will be designed to incorporate new requirements, adapt to the services' and DoD's needs for digital TM data, and to take advantage of new technologies as they become available.

v. Standardize TM Formats and Procedures. The TM system (program) is managed through the publication of TM policy and guidance, regulations, and TMSS. All TM specifications are identified in the Department of Defense Index of Specifications and Standards (DoDISS). These specifications control TM development efforts, including TM content, fonnat and style. The ADS will support DoD and CALS standardization of formats and procedures which will provide consistency and clarity to the development process. This standardization win also improve management planning and control processes.

w. Standardize System Procedures. The current system incorporates both manual and automated procedures. Many of these are redundant, inefficient, time or labor intensive. By providing integrated, on-line interactive data base systems, procedures will be standardized. These procedures will simplify the TM system for the users and provide consistency for effective operations and maintenance.

x. Reduce Hazardous Waste. Hazardous waste generation will be reduced as a result of reduced printing of paper TMs.

y. Incorporate IETM Technology. The current system is hampered in that technical information is book and page oriented, contains redundant text and illustrations, and employs paper as the primary medium. Incorporation of IETM technology will permit: automatic tailoring of information presentation to the task level; elimination of redundant data; tailoring of data to the specific equipment configuration; and elimination of or greatly reducing time consuming, labor intensive processes associated with printing, reproduction, distributing, warehousing, and use of paper technical information.

2.5.3.8 Advanced Information and Image Management.

In addition to satisfying stated requirements using existing technology, the program will require development in the areas of advanced information and image management. Technologies that can improve effectiveness in technical information management and use, such as the use of multiple colors and video image processing, are projected to emerge during the program life cycle. The program must be in a position to facilitate that development, participate in establishing standards, and incorporate those technologies into the program.

2.5.4 Summary of Impacts.

Described in this section are the general impacts on the existing organizational and operational environments of the users of the implemented ADS system.

2.5.4.1 User Organizational Impacts.

2.5.4.1.1 Organizational Responsibilities.

Within each of the Services, TM functional responsibilities are not vested in a single organization. In the Air Force, the policy and guidance responsibilities are fragmented among various headquarters offices and subordinate commands. In the Army, TM responsibilities are divided between two major commands, U.S. Army Materiel Command (USAMC) and U.S. Army Information Systems

Command (USAISC). AMC under the guidance of Headquarters Department of the Army (HQDA) manages the Army TM program and Information Systems Command has the DA functional responsibility for matters pertaining to all official publications and their printing and distribution. In both Army and Navy, most TM responsibilities have been further delegated to subordinate commands, and each service intends to maintain this delegation of authority. For example, in the Army policy/guidance/TMSS is the responsibility of HQ AMC/Materiel Readiness Support Activity (MRSA) and acquisition/creation of TMs is delegated to the MSCS. The Air Force intends to consolidate TM responsibilities as follows:

a. The Air Force will consolidate TM acquisition, maintenance, and management functions responsible for all TM policy and guidance. These Air Force centralized management functions will also include TM specifications and standards.

b. Current Air Force Centralized Technical Order Management (CROM) group functions and responsibilities as an overall policy and guidance approval authority will remain unchanged.

Functional responsibilities of the various activities throughout all services concerned with acquiring, maintaining, and publishing TMs will largely be unchanged.

At each geographical location to which TMs win be distributed, extensive impacts will occur:

a. The Army will be required to identify resources for an establish new infrastructure resource elements, policies, and procedures for a centralized TM distribution function at each major Army installation to ensure effective and efficient distribution of TMs and TM management information to users via a unit level organization. The implementation of a centralized TM distribution function represents a fundamental change to the pinpoint distribution concept currently in use. Implementation will require the Army to establish procedures for and regulations governing requirements to constantly maintain electronic addressing and mail/shipping data to ensure the flow of TMs and TM-related information is not interrupted during deployments and relocations.

b. Within the Navy, the establishment of an office having responsibilities for inventory control, library maintenance, and distribution control will provide the single point for interface between the user and the TM manager. During the development of the Shipboard Non-tactical ADP Program (SNAP), consideration of the wide range of user presentation needs will also define

responsibilities of the user with respect to the interface to the system.

c. Under the current TO system, the Air Force distributes manuals to Technical Order Distribution Offices (TODO) at each base or station. These TODOs may include several major commands or Separate Operating Agencies (SOAs) located at the particular installation. The impacts on these organizations will range from minor to severe, since the system concept envisions the establishment of one centralized distribution center at each site. This ADS facility will be responsible for the base library inventory, inventory maintenance, distribution control, TM change and update processing, and user/system interface. Under the system concept, these responsibilities will transfer from the current TODOS; however, the responsibilities of any accounts under the current TODOs will remain the same.

2.5.4.1.2 Personnel.

With the implementation of the system, the Army and Navy envision no long-term adverse impacts on personnel at the levels or activities responsible for the key functional areas of manage, acquire, improve, publish, and stock TMs. Both services recognize the need for temporary increases and disruptions in staffing as the implementation of the system will involve maintenance of parallel operations with existing systems for approximately a year.

With the consolidation of policy and guidance into a single management agency, the Air Force may require transfer of manpower spaces, possible transfer of personnel, and decisions on the level of authority of the newly formed office. The locations and structure of this agency will be determined by HQ USAF. AFLC and Air Force Systems Command (AFSC) will merge into Air Force Materiel Command (AFMC) in FY 92. The resulting AFMC activities responsible for the acquire, improve, publish, and stock TMs functions should not encounter any significant additional (i.e., post-merger) personnel turbulence resulting from implementing the system.

Within all services, the implementation of the system at the geographical locations [Fort, Naval Air Station (NAS), Air Force Base (AFB), etc.] and organizational levels (squadron, brigade, fleet, etc.) will have personnel impacts. In many organizations, centralizing distribution functions may draw personnel authorizations and other resources (funds, equipment, etc.) from several units. It is not envisioned that any savings of manpower will be realized until after the complete implementation of the system is accomplished.

2.5.4.2 User Operational Impacts.

Implementation of the system will change the means by which normal TM functions am accomplished. Processes currently done manually of through some level of automation will be highly automated and integrated.

a. Interfaces to centralized distribution functions will be through use of terminals or workstations connected electronically to a central node. Some organizations at satellite units may be off-line. In that case, transactions and data transfers will be accomplished via digital media.

b. Operational procedures will have to be amended to accommodate use of automation and electronic distribution capabilities to accomplish core functional responsibilities.

c. Modes of user operation will change as previously manual or minimally automated processes are further or fully automated. The most significant change in operational mode will be the capability to provide inquires (requisitions, submissions of change recommendations, etc.), and to request/receive status in near-real time instead of the weeks and months currently being experienced.

2.5.4.3 User Development Impacts.

2.5.4.3.1 Testing Involvement.

The contractor will accomplish hardware, software, and module development and testing at his facility. The system Program Management Office (PMO) functional and engineering specialists drawn from all services will be assigned to the development facility to aid in Development, Test, and Evaluation (DT&E).

Hardware subassembly integration and test, and software module integration and test will undergo Initial Operational Test and Evaluation (IOT&E) at Wright-Patterson AFB, OH. IOT&E testing will be conducted by the PMO, selected level I and 2 users drawn from the services, and Independent Validation and Verification (IV&V) personnel. At the end of this period, the government will have accepted all system software modules.

Following the IOT&E phase, the integrated hardware and software must be loaded with the converted management and technical manual content data. Full Operational Test and Evaluation (FOT&E) Will be accomplished at selected sites from all services using designated lead systems. Service personnel (users) who manage, maintain, publish, and distribute TMs and

operate the lead systems will exercise the full range of functionality of the installed ADS. The newly formed centralized distribution facility (system and new organizations) will be an integral part of the FOT&E efforts.

2.5.4.3.2 Parallel Operations.

Parallel operations will be required to support ongoing mission requirements pending completion of ADS installations. In addition, parallel operations will also be maintained while furnishing support for DT&E, IOT&E, and FOT&E test data acquisition and validation requirements.

2.5.4.4 Training.

The joint TM system trainees will be expected to be knowledgeable and experienced in their own service's technical manual systems and in their area of assignment. Trainees not experienced in the TM process must have completed their respective service's training prior to entering ADS training. Since individual training requirements will be affected by the selected Prime Contractor's technical solution for the system, the Prime Contractor will be required to identify prerequisite skills for training. Training courses will be designed to facilitate efficient instruction of system personnel and effective transition of training to the Service's instructor cadres. Those students attending training must be "computer literate", i.e., familiar with the use of personal computer/system hardware, software, video displays, and simple data entry techniques. AU courses and training documentation will be planned, designed, and developed to respond to requirements identified by the services for all levels of system implementation training.